Be A Developer Experience Super Hero:

Robust Dev Scripts For Peace and Joy

PANTHEON®
Website Management Platform

Hi, I'm Dustin LeBlanc!

Customer Success Engineer at Pantheon

dustinleblanc on Twitter, Github, Linkedin, and
drupal.org

dustin@pantheon.io

Who Are you?

Who who, who who?

1. Agency CTO / Lead

2. Lead developer

3. Those who want to be leaders

Why care about developer experience?
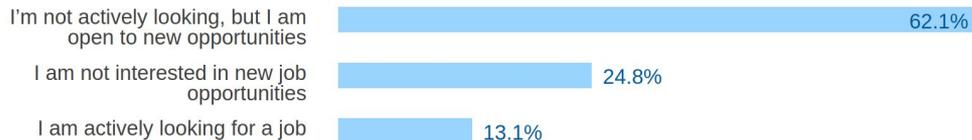
We aren't just building sites

We're building

teams!

Developers Are Easy to Lose

Looking for a Job

Job Search Status

I'm not actively looking, but I am open to new opportunities — 62.1%

I am not interested in new job opportunities — 24.8%

I am actively looking for a job — 13.1%

33,380 responses

Only 13.1% of developers are actively looking for a job. But 75.2% of developers are interested in hearing about new job opportunities.

Source: Stack Overflow Developer Survey 2017

What do developers want?

Top Reasons Developers Leave

Source: 2014 Glass Door Survey

Less time spent on:

- Manual testing

- Workstation configuration

- Project setup

More time spent on:

- Billable work

- Fancypants fun stuff

- Open source contribution

- Building better orgs

Which means you can pay your team more

And bug them about making money less

I'm Sold! But How?

Components of Scripted Serenity

- **Minimal** Local Dependencies (cross platform, as much as possible)
- **Automated** tests, builds, and deployments
- **Accessible**, reliable, and reusable scripts

Local Dependencies

Composer

Docker-Compose

Dependable and Repeatable Tests/Builds

PANTHEON®

Regression testing is easier than it has

ever been, manual testing hasn't gotten

any easier...

But setting up CI/CD can still be a pain

If at first you don't succeed...

74th time is a charm!

Terminus Build Tools

One Command:

- New Pantheon Site

- New Github Repo

- CircleCI

- Behat

- Deploy to multi-dev

SCRIPT IT AND FORGET IT

Get it here: https://github.com/pantheon-systems/terminus-build-tools-plugin

```
$ terminus build-env:create-project --team="Team Discovery Channel" disc-d8 best-site-ever
```

Much Better!

How best to use CI?

- Build Assets, keeping source repos small, making patching declarative and automated.
- Check code style, complexity, and performance
- Run acceptance and unit tests
- Consistent and reliable deployments
- Everything you need to do before shipping...but forget to do.
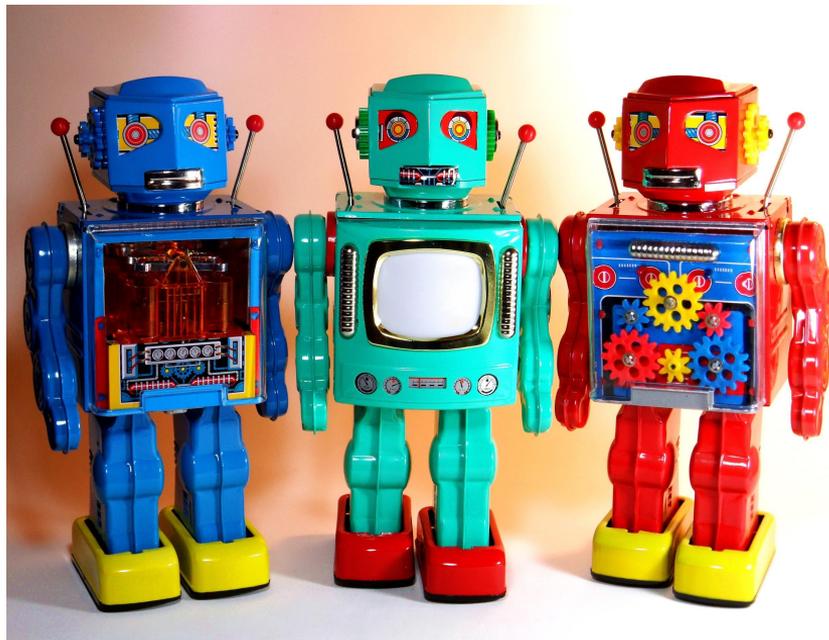
Super Smart Scripting

What Devops Scripting Should Be

- Easy to contribute

- Easy to understand

- Easy to extend

```php
/**
 * Synchronizes local development environment with a specified remote.
 * @param $env
 * @throws \Robo\Exception\TaskException
 */
public function sync($env) {
  if (!array_key_exists($env, $this->envs)) {
    return $this->say("I'm sorry but that environment is invalid");
  }
  if ($this->syncDb($env)->run()->wasSuccessful()) {
    $this->disableProdModules();
    $this->enableDevModules();
    $this->buildDrushTask()
      ->exec("vset stage_file_proxy_origin {$this->getEnvUrl($env)}")
      ->run();
  }

  if ($this->ask("Should I run updates and revert features? (y/n) \n") === 'y') {
    $this->runUpdates();
  }
}
```

Robo to the

rescue!

http://robo.li
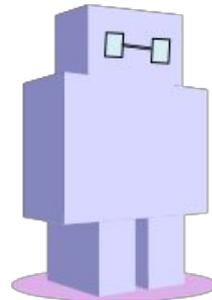
Symfony Console Style Commands

```
super-scripts master % ./vendor/bin/robo
Robo version 1.0.6

Usage:
  command [options] [arguments]

Options:
  -h, --help                          Display this help message
  -q, --quiet                         Do not output any message
  -V, --version                       Display this application version
      --ansi                          Force ANSI output
      --no-ansi                       Disable ANSI output
  -n, --no-interaction                Do not ask any interactive question
      --simulate                      Run in simulated mode (show what would have happened).
      --progress-delay=PROGRESS-DELAY Number of seconds before progress bar is displayed in long-running task collections. Default: 2s. [default: 2]
  -D, --define=DEFINE                 Define a configuration item value. (multiple values allowed)
  -v|vv|vvv, --verbose                Increase the verbosity of messages: 1 for normal output, 2 for more verbose output and 3 for debug

Available commands:
  help            Displays help for a command
  list            Lists commands
  setup           Seed database, shim in settings.local.php
  test            Run Behat tests.
  up              Bring containers up, seed files as needed.
 backup
  backup:get      Pull fresh backup from dev site.
 db
  db:seed         Provision the database seed for Docker.
 terminus
  terminus:login
super-scripts master % █
```

Just Public Functions In A Class

```php
1  <?php
2
3  /**
4   * This is project's console commands configuration for Robo task runner.
5   *
6   * @see http://robo.li/
7   */
8  class RoboFile extends \Robo\Tasks
9  {
10     const COMPOSE_BIN = 'docker-compose';
11     const DRUPAL_ROOT = __DIR__ . '/web';
12     const DUMP_FILE = __DIR__ . '/dump.sql.gz';
13     const BEHAT_BIN = './vendor/bin/behat';
14     const SITENAME = 'super-scripts';
15     const TERMINUS_BIN = 'terminus';
16
17
18     /**
19      * Provision the database seed for Docker.
20      */
21     public function dbSeed()
22     {
23         $this->_exec('gunzip dump.sql.gz');
24         $this->taskFilesystemStack()
25             ->mkdir('mariadb-init')
26             ->remove('mariadb-init/dump.sql')
27             ->rename('dump.sql', 'mariadb-init/dump.sql')
28             ->run();
29     }
30
31     /**
32      * Pull fresh backup from dev site.
33      */
```

Why use PHP?

- Familiar to Drupal developers
- Cuts down on context switching and number of languages (per project)
- Access to Application functionality
- Consistent execution
- Encourages contribution

Example Project

https://github.com/dustinleblanc/super-scripts

PANTHEON®

5 Commands
From never touching the project, to ready to add new features

```
dustinleblanc  ~   git clone super-scripts -q                          master
dustinleblanc  ~   cd super-scripts                                    master
dustinleblanc  super-scripts   composer install -q                    master
dustinleblanc  super-scripts   composer up                            master
> robo up
  [Exec] Running terminus login --machine-token=
  [notice] Found a machine token for dustin.m.leblanc@gmail.com.
  [notice] Logging in via machine token.
  [Exec] Done in 0.905s
  [Exec] Running terminus 'backup:create' super-scripts.dev --element db
  [notice] Created a backup of the dev environment.
  [Exec] Done in 5.364s
  [Exec] Running terminus 'backup:get' super-scripts.dev --to /home/dustinleblanc/super-scripts/dump.sql.gz
  [Exec] Done in 2.319s
  [Exec] Running gunzip dump.sql.gz
  [Exec] Done in 0.038s
  [Filesystem\FilesystemStack] mkdir ["mariadb-init"]
  [Filesystem\FilesystemStack] remove ["mariadb-init/dump.sql"]
  [Filesystem\FilesystemStack] _rename ["dump.sql","mariadb-init/dump.sql"]
  [Exec] Running docker-compose up -d
Creating network "superscripts_default" with the default driver
Creating superscripts_php_1
Creating superscripts_testdb_1
Creating superscripts_mariadb_1
Creating superscripts_mailhog_1
Creating superscripts_testphp_1
Creating superscripts_nginx_1
Creating superscripts_testnginx_1
Creating superscripts_phantomjs_1
  [Exec] Done in 2.571s
dustinleblanc  ~   super-scripts   composer test                       master
> robo test
  [Exec] Running docker-compose run testphp ./vendor/bin/behat --colors --format progress
  ...........................
5 scenarios (5 passed)
27 steps (27 passed)
0m15.34s (11.97Mb)
  [Exec] Done in 16.298s
dustinleblanc  ~   super-scripts                                       master
```

Helpful tools

KALABOX

Local development with Docker + Slick GUI + Sick Pantheon Integration
www.kalabox.io

```
1  version: "2"
2
3  services:
4    mariadb:
5      image: wodby/mariadb:10.1-2.0.0
6      environment:
7        MYSQL_ROOT_PASSWORD: password
8        MYSQL_DATABASE: drupal
9        MYSQL_USER: drupal
10       MYSQL_PASSWORD: drupal
11     volumes:
12       - ./mariadb-init:/docker-entrypoint-initdb.d # Place init .sql file(s) here.
13
14   php:
15     image: wodby/drupal-php:7.0-2.0.0
16     environment:
17       PHP_SENDMAIL_PATH: /usr/sbin/sendmail -t -i -S mailhog:1025
18       PRESSFLOW_SETTINGS: '{"databases":{"default":{"default":{"database":"drupal","username":"drupal","password":"drupal","host":"mariadb","port":"3306","driver":"mysql","p
     refix":"","collation":"utf8mb4_general_ci"}}}}'
19       PANTHEON_ENVIRONMENT: local
20       # PHP_XDEBUG: 1
21       # PHP_XDEBUG_DEFAULT_ENABLE: 1
22       # PHP_XDEBUG_REMOTE_CONNECT_BACK: 0        # This is needed to respect remote.host setting bellow
23       # PHP_XDEBUG_REMOTE_HOST: "10.254.254.254"  # You will also need to 'sudo ifconfig lo0 alias 10.254.254.254'
24     volumes:
25       - ./:/var/www/html
26 #     - d4d-unison-sync:/var/www/html:rw # Replace volume to this to use docker-sync for macOS users
27
28   nginx:
29     image: wodby/drupal-nginx:8-1.10-2.0.0
30     restart: unless-stopped
31     depends_on:
32       - php
33     environment:
34       NGINX_BACKEND_HOST: php
35       NGINX_SERVER_ROOT: /var/www/html/web
36       DRUPAL_HASH_SALT: mmm...salty
37     ports:
38       - "8000:80"
39     volumes:
40       - ./:/var/www/html
41
42   testdb:
43     image: wodby/mariadb:10.1-2.0.0
44     environment:
```

Docker4Drupal by Wodby
Docker-Compose containers that are super easy to get started with

DRUPAL VM
— ★ —

[DrupalVM](#) is a great non-Docker way to have consistent and declarative dev environments

Do the Friday sprints!

Participate in the Drupal community, attend the Friday sprints!

https://events.drupal.org/baltimore2017/sprints

All are welcome, from new folks to wise and experienced Drupalists, help make Drupal even better!

Thank you!

Thanks so much for your time!

Please provide any feedback you have on my presentation here:

https://events.drupal.org/baltimore2017/sessions/be-developer-experience-super-hero-robust-dev-scripts-peace-and-joy

Questions?